



#16

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Suhrbier, et al.

Serial No.: 09/576,101

Filed: May, 22 2000

For: POLYEPITOPE VACCINES

Group Art Unit: 1644

Examiner: Huynh, P. N.

Atty. Dkt. No.: FBRC:004USC1/TMB

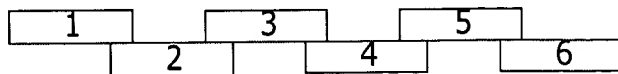
Appendix D

SUBSTITUTE DRAWINGS SHEETS 1/29 THROUGH 29/29

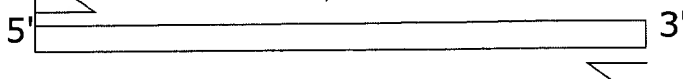


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6X70mer overlapping oligonucleotides

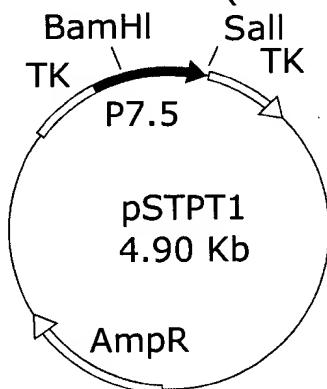


BamHI



- Stepwise SOEing of oligonucleotides by PCR

- Final PCR
- Cloned into pBluescript
- Sequencing
- Cloned into pBCBO7 (Sall from PBluescript)



- Marker-Rescue Recombination

RECOMBINANT VACCINIA

MSTNSFLRGRAYGL QAKWRLQTL-
EENLLDFVRF SVRDRLARLKEHVIQNAF-
YPLHEQHGMHLAAQGMAY DTPLIPTIF-
IVTDFSVIKNNLVSGPEH

Polytope Protein Sequence

FIGURE 1



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APPROVED	BY	CLASS	SUBCLASS
DRAFTSMAN			

EFFECTOR
CTL
CLONES

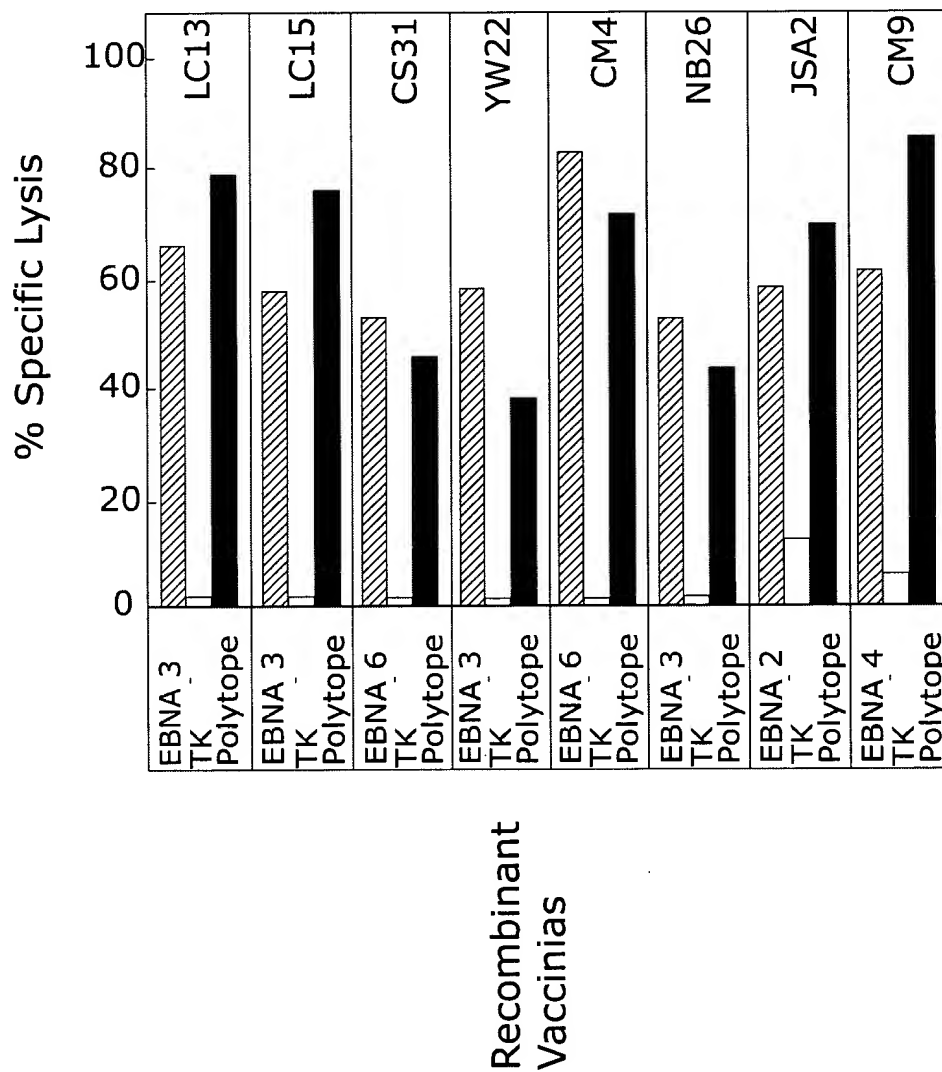


FIGURE 2

APPROVED	CLASS	SUBCLASS
BY		
DRAFTSMAN		



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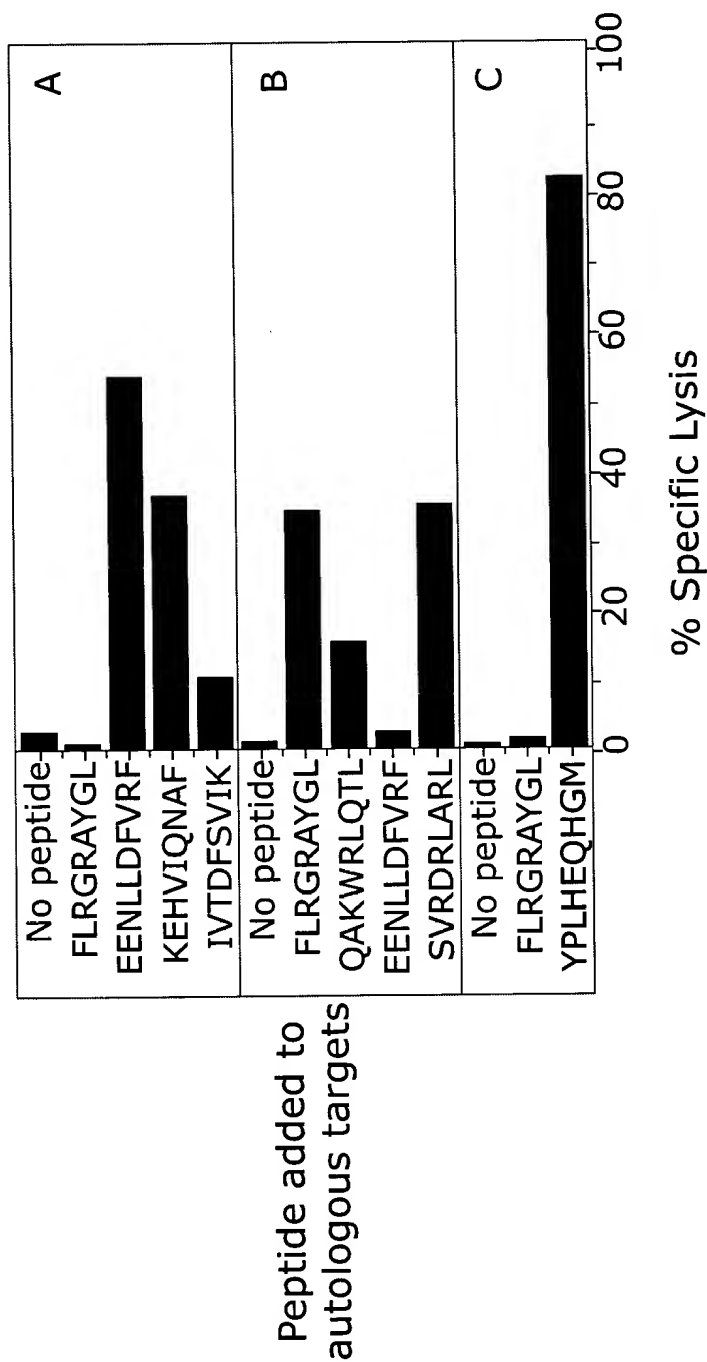


FIGURE 3



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APPROVED	D.G. H3.	CLASS	SUBCLASS
BY			
DRAFTSMAN			

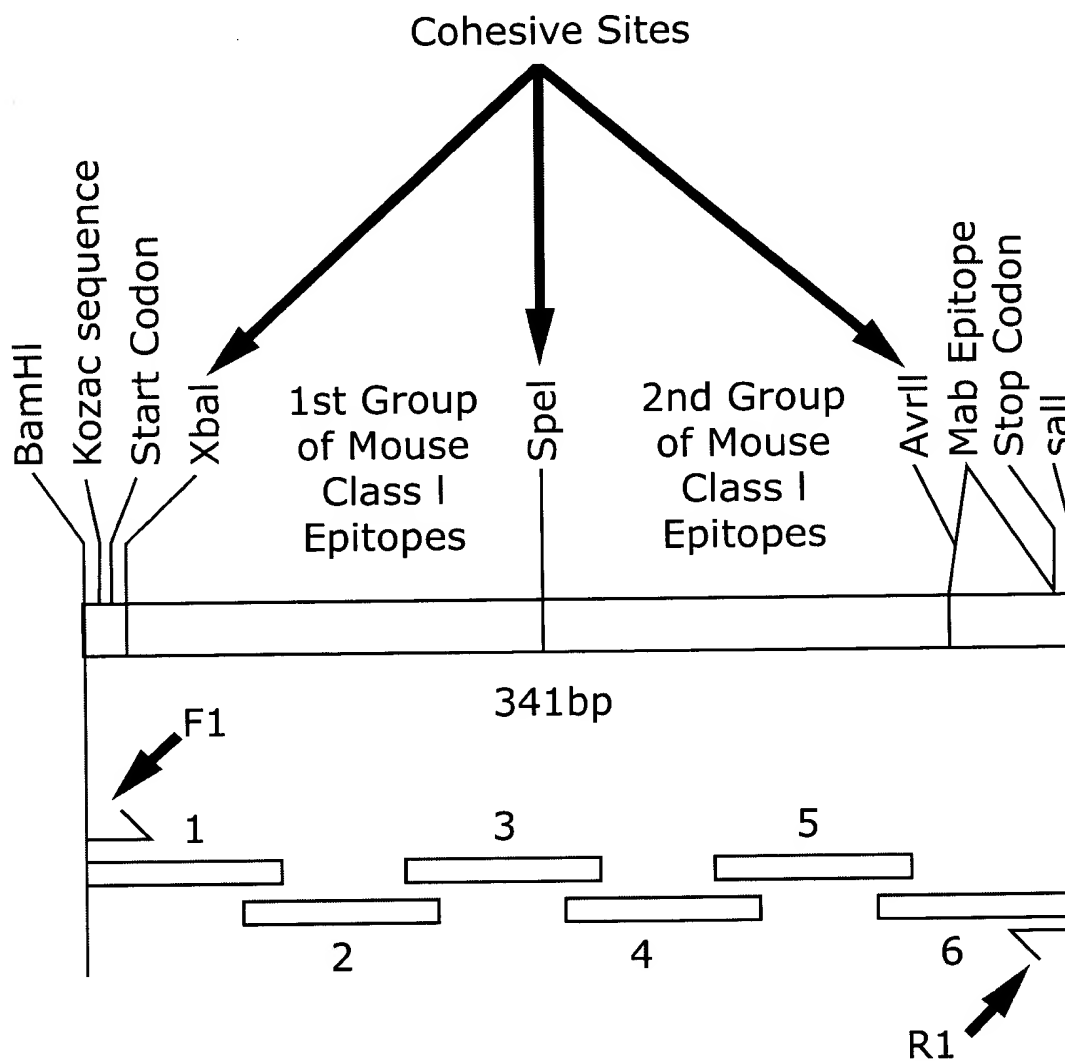
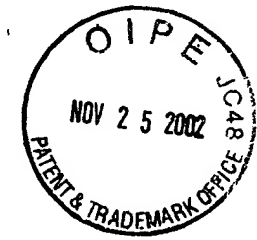


FIGURE 4



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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BamHI Kozac
GGATCC CCACC

Start XbaI

M SR
ATG TCTAGA A S N E N M D A M S I I N F E K L
GCC AGC AAC GAG AAC ATG GAC GCC ATG AGC ATC ATC AAC TTC GAG AAG CIT

T Y Q R T R A L V
ACC TAC CAG AGG ACC AGG GCC CTG GTG

S D Y E G R L I
AGC GAC TAC GAG GGC AGG CTG ATC

SpeI

Y P H F M P T N L
TAC CCA CAC TTC ATG CCT ACC AAC CTG

T S
ACTAGT S G P S N T P P E I
AGT GGG CCC AGT AAC ACC CCG CCA GAG ATC

F A P G N Y P A L
TTC GCC CCA GGC AAC TAC CCT GCC CTG

S Y I P S A E K I
AGC TAC ATC CCA AGC GCC GAG AAG ATC

E E G A I V G E I
GAG AGA GGG GCC ATC GTG GGC GAG ATC

R P Q A S G V Y M
AGG CCT CAG GCC AGC GGC GTG TAC ATG

AvrII

Mab epitope

Stop SalI

P R
CCTAGG

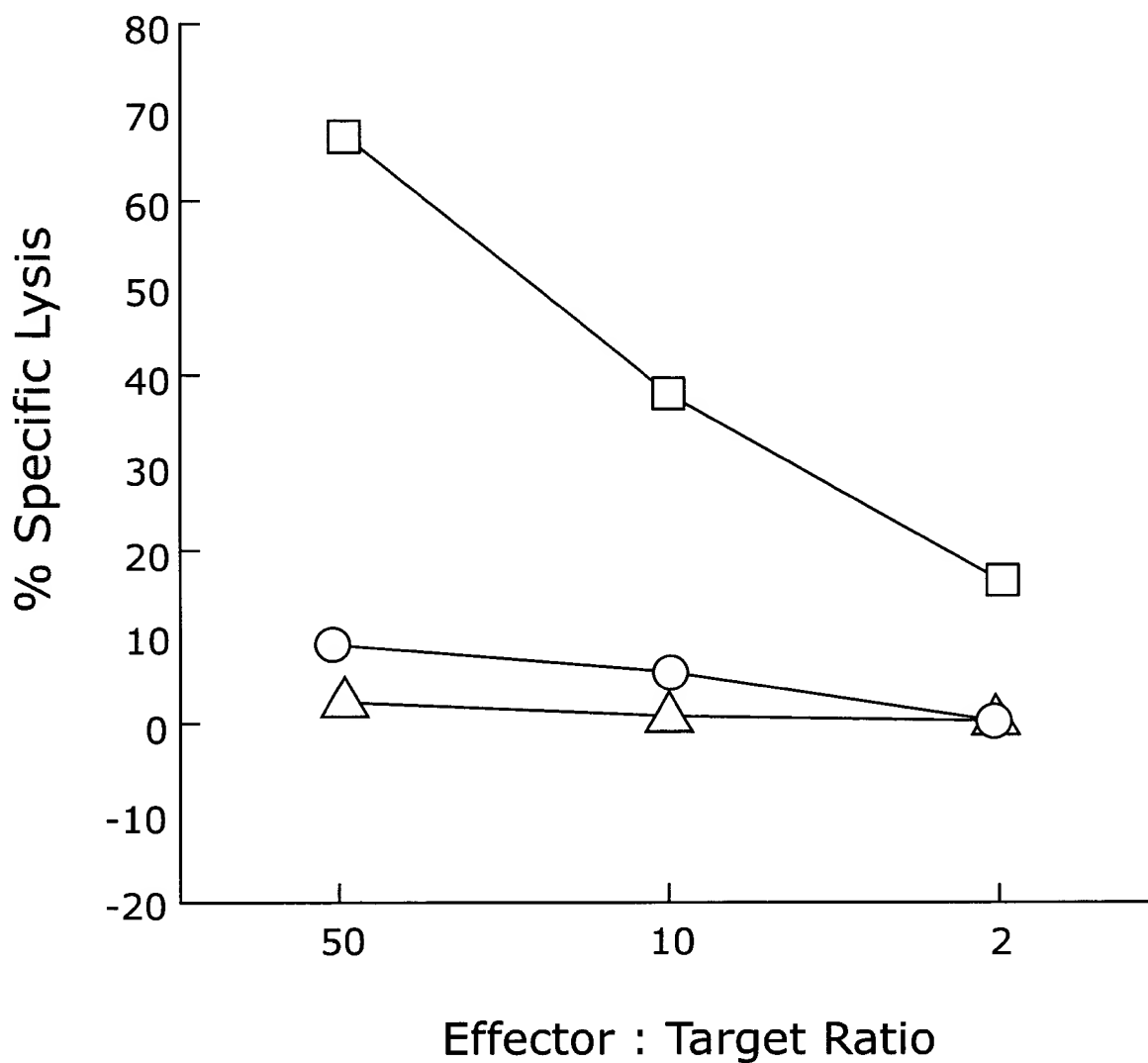
N N L V S G P E H L Z
AAC AAC CTG GTG TCC GGC CCC GAG GAC TTA TAG GTCGAC

FIGURE 5



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Flu NP "TYQRTRALV" (H-2K^d)



LEGEND

- Bulk Splenocytes from Polytope Vaccinated Mice
- △— No peptide Control
- Bulk Splenocytes from TK- Vaccinated Mice

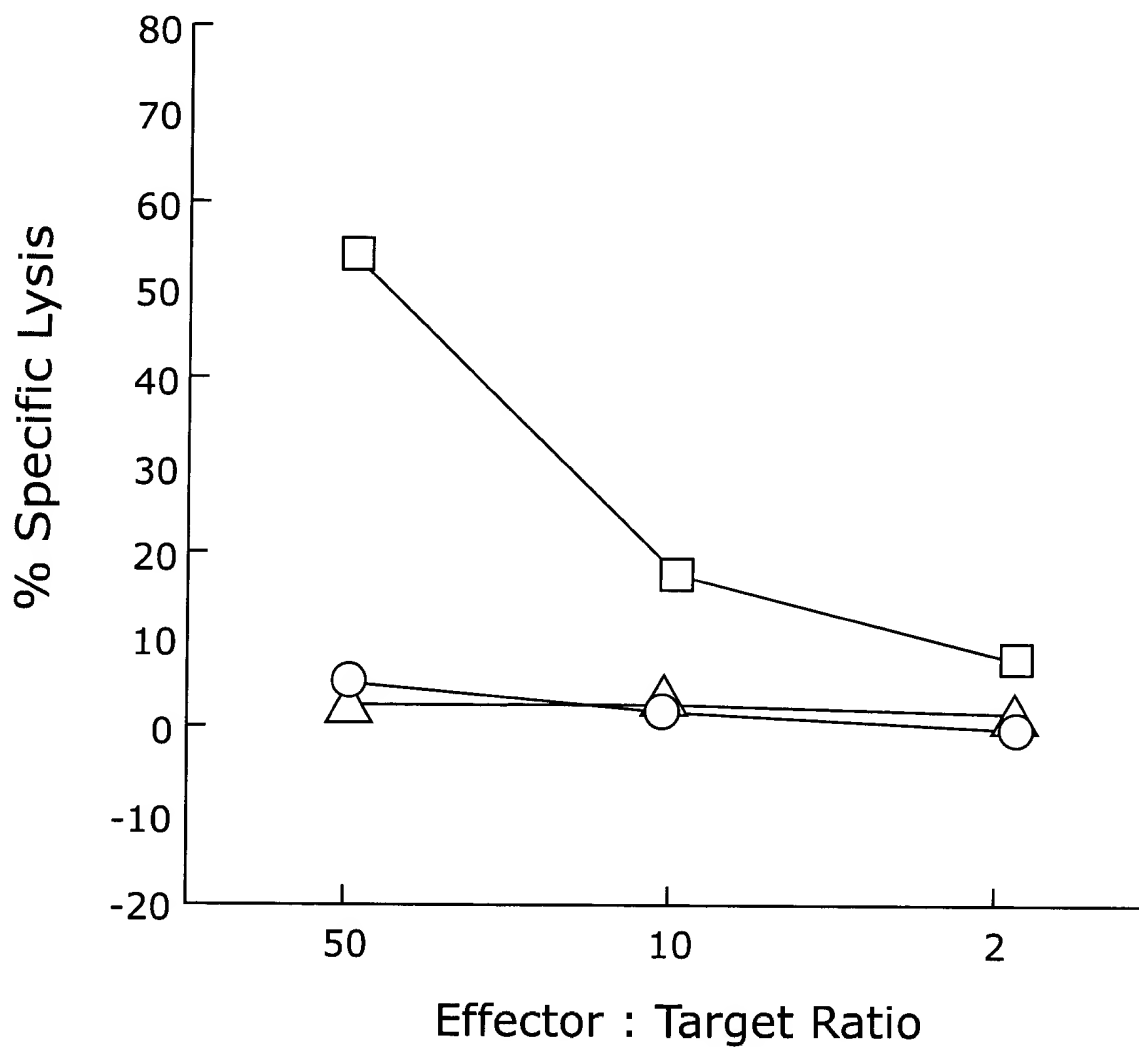
FIGURE 6A



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PB csp "SYIPSAEKI" (H-2K^d)

APPROVED	O.G. FIG.	SUCCESS
BY	CLASS	
DRAFTSMAN		



LEGEND

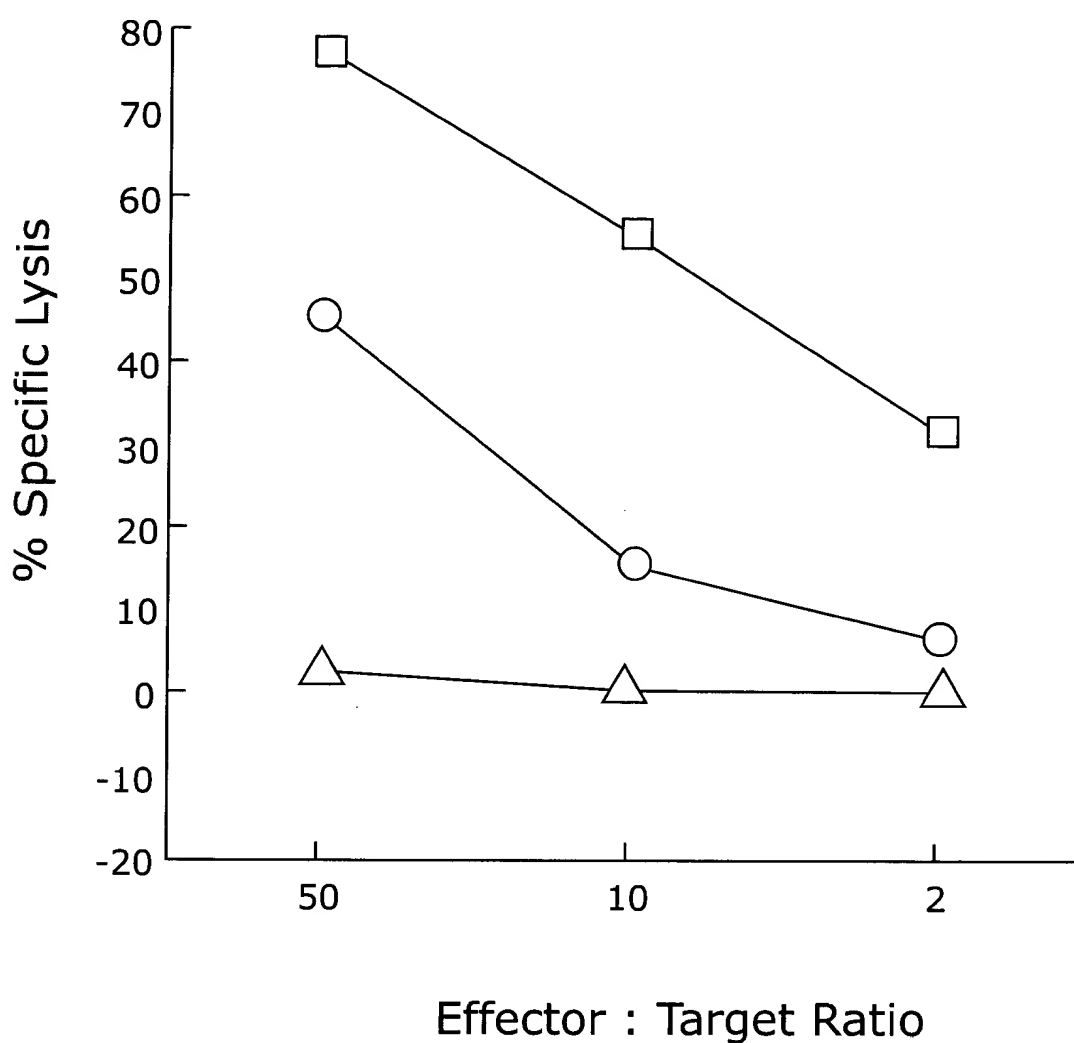
- Bulk Splenocytes from Polytope Vaccinated Mice
- △— No peptide Control
- Bulk Splenocytes from TK- Vaccinated Mice

FIGURE 6B



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MCMV pp89 "YPHFMPPTNL" (H-2L^d)



LEGEND

- Bulk Splenocytes from Polytope Vaccinated Mice
- △— No peptide Control
- Bulk Splenocytes from TK- Vaccinated Mice

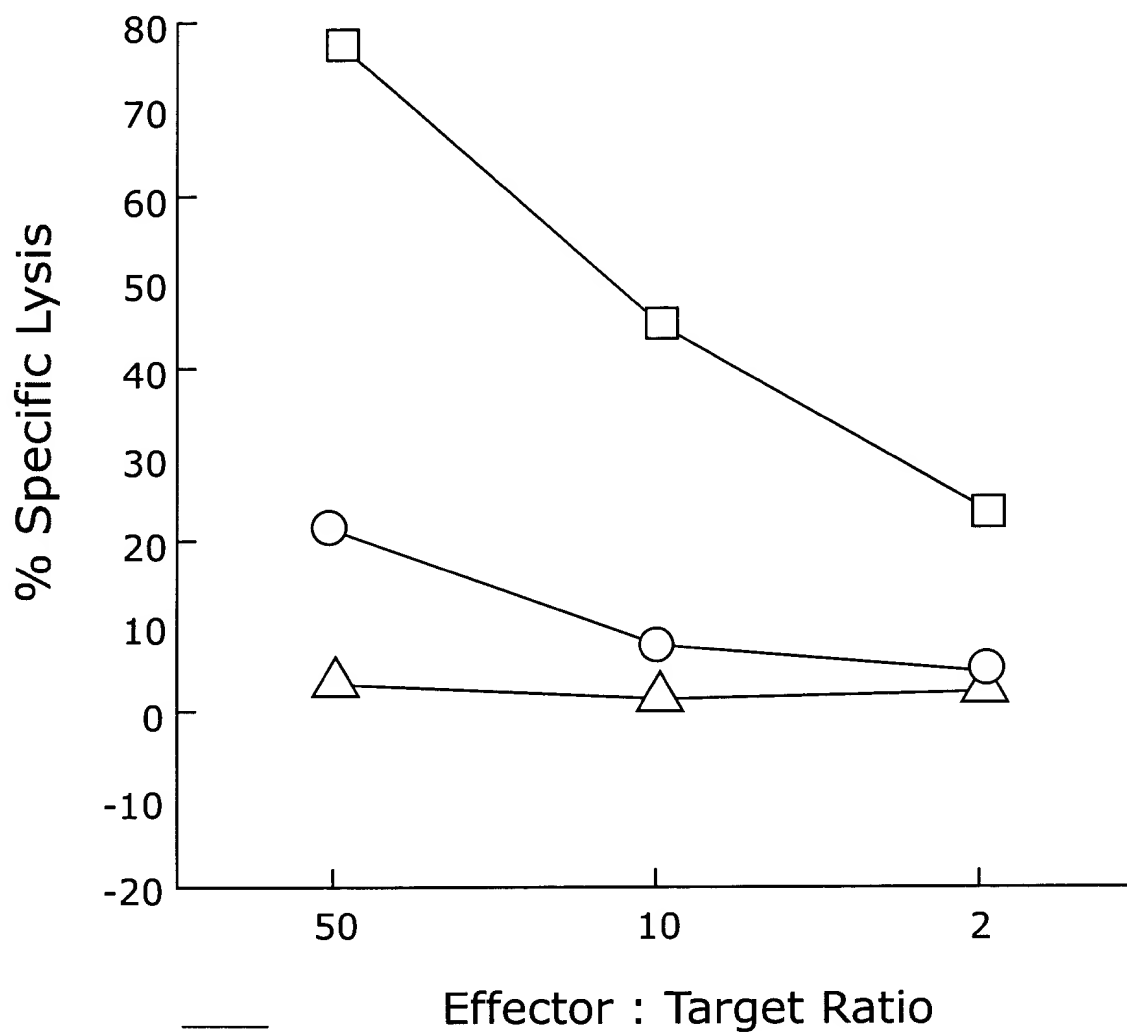
FIGURE 6C



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LCMV NP "RPQASGVYM" (H-2K^d)

APPROVED BY DRAFTSMAN	O.G. FIG.	SUBCLASS
	CLASS	



LEGEND

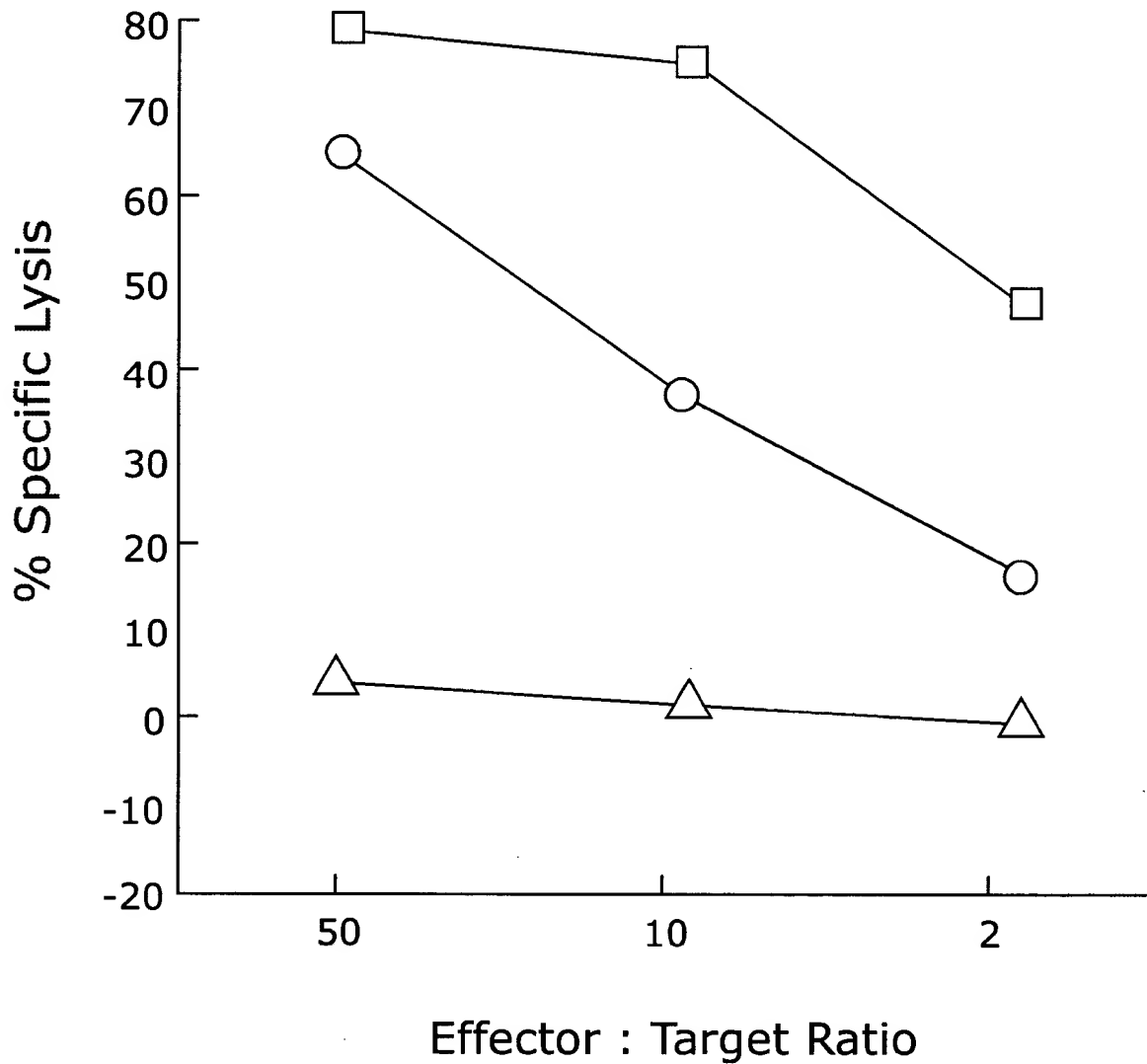
- Bulk Splenocytes from Polytope Vaccinated Mice
- △— No peptide Control
- Bulk Splenocytes from TK- Vaccinated Mice

FIGURE 6D



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Flu NP "SDYEGRLI" (H-2K^k)



LEGEND

- Bulk Splenocytes from Polytope Vaccinated Mice
- △— No peptide Control
- Bulk Splenocytes from TK- Vaccinated Mice

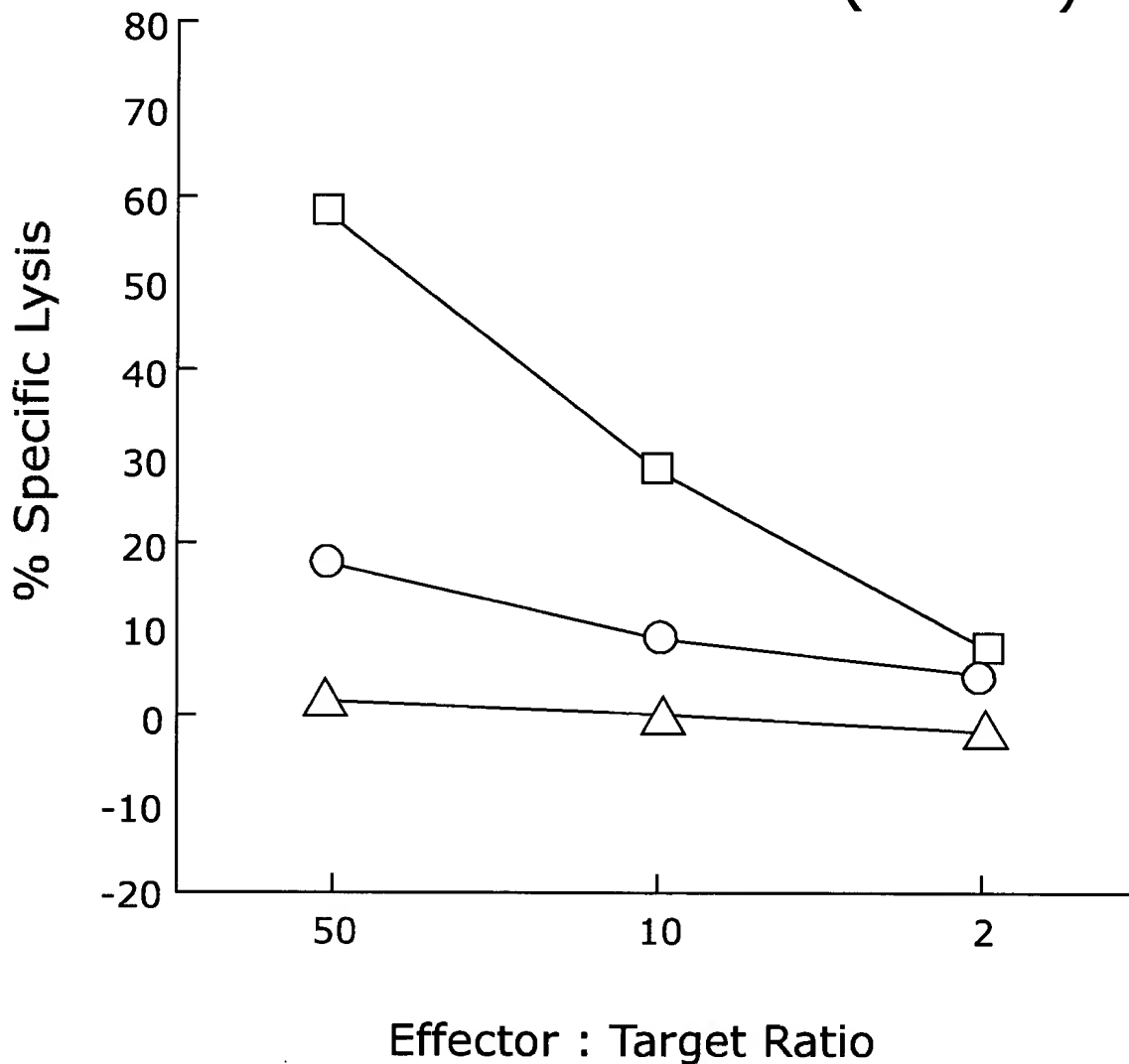
FIGURE 6E



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Flu NS1 "EEGAIVGEI" (H-2K^k)

APPROVED	O.G. FIG.	SUBCLASS
BY	CLASS	
DRAFTSMAN		



LEGEND

- Bulk Splenocytes from Polytope Vaccinated Mice
- △— No peptide Control
- Bulk Splenocytes from TK- Vaccinated Mice

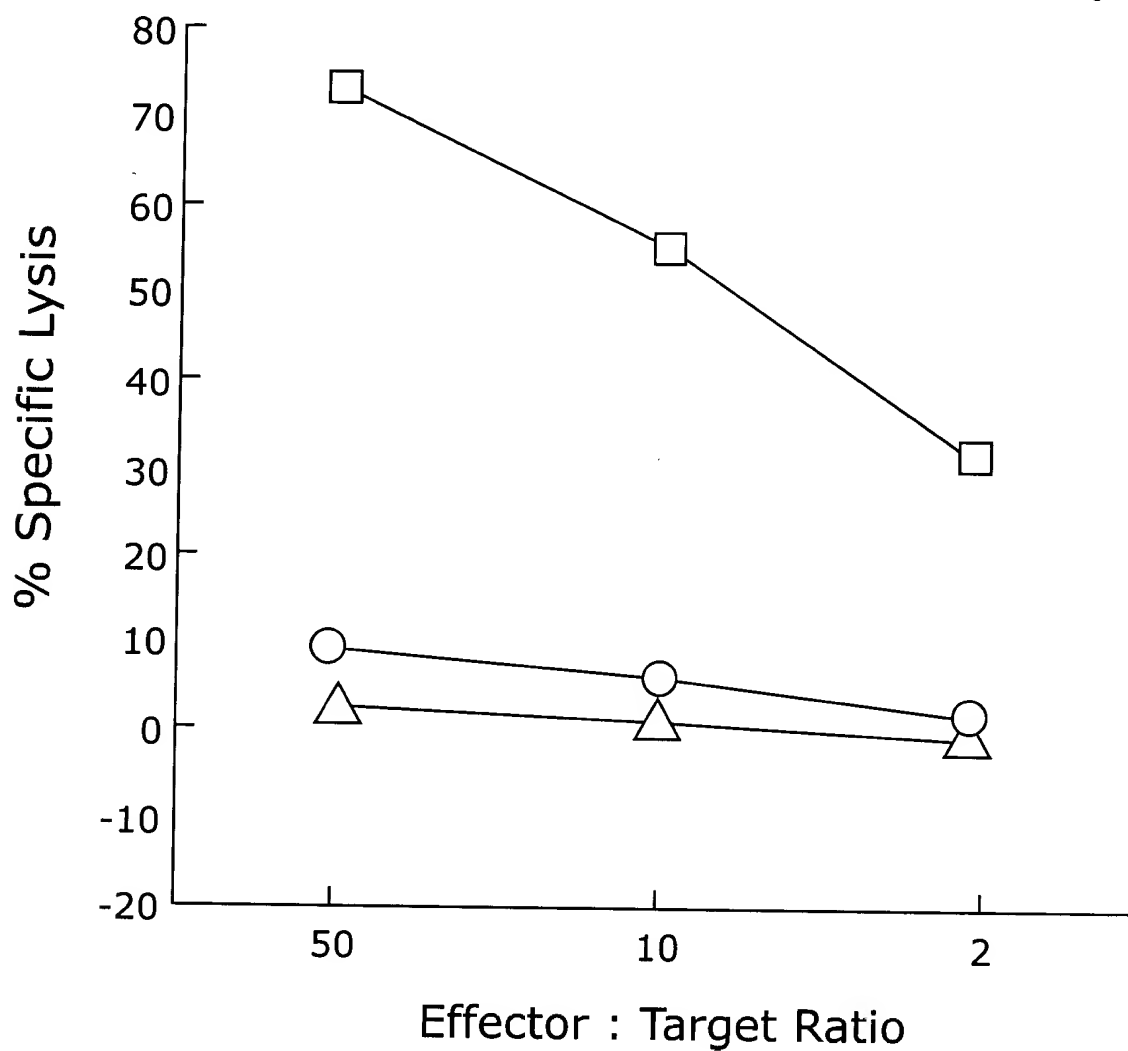
FIGURE 6F



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Flu NP "ASNENMDAM" (H-2D^b)

APPROVED	U.S. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS



LEGEND

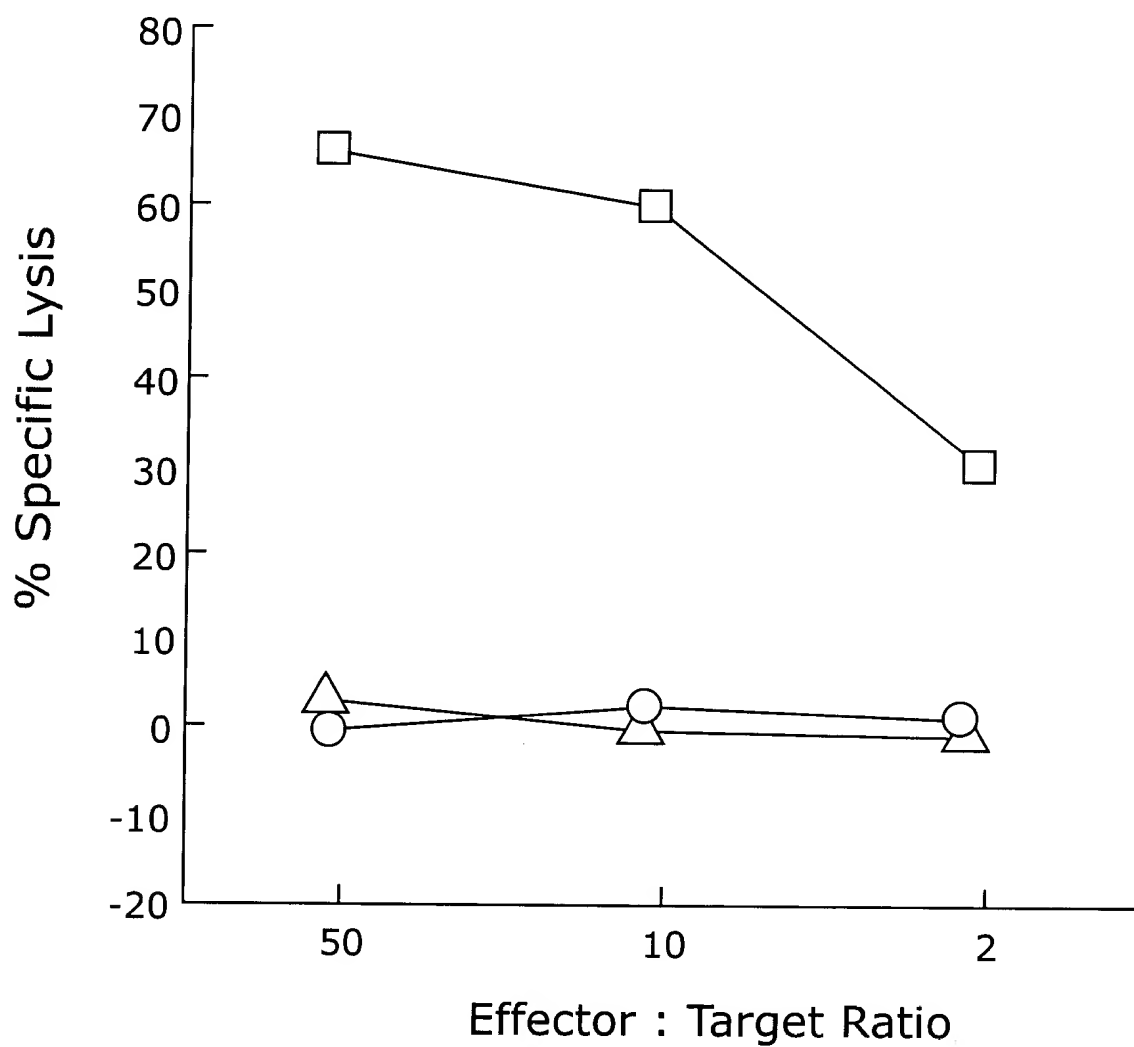
- Bulk Splenocytes from Polytope Vaccinated Mice
- △— No peptide Control
- Bulk Splenocytes from TK- Vaccinated Mice

FIGURE 6G



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Ad5 E1A "SGPSNTPPEI" (H-2D^b)



LEGEND

- Bulk Splenocytes from Polytope Vaccinated Mice
- △— No peptide Control
- Bulk Splenocytes from TK- Vaccinated Mice

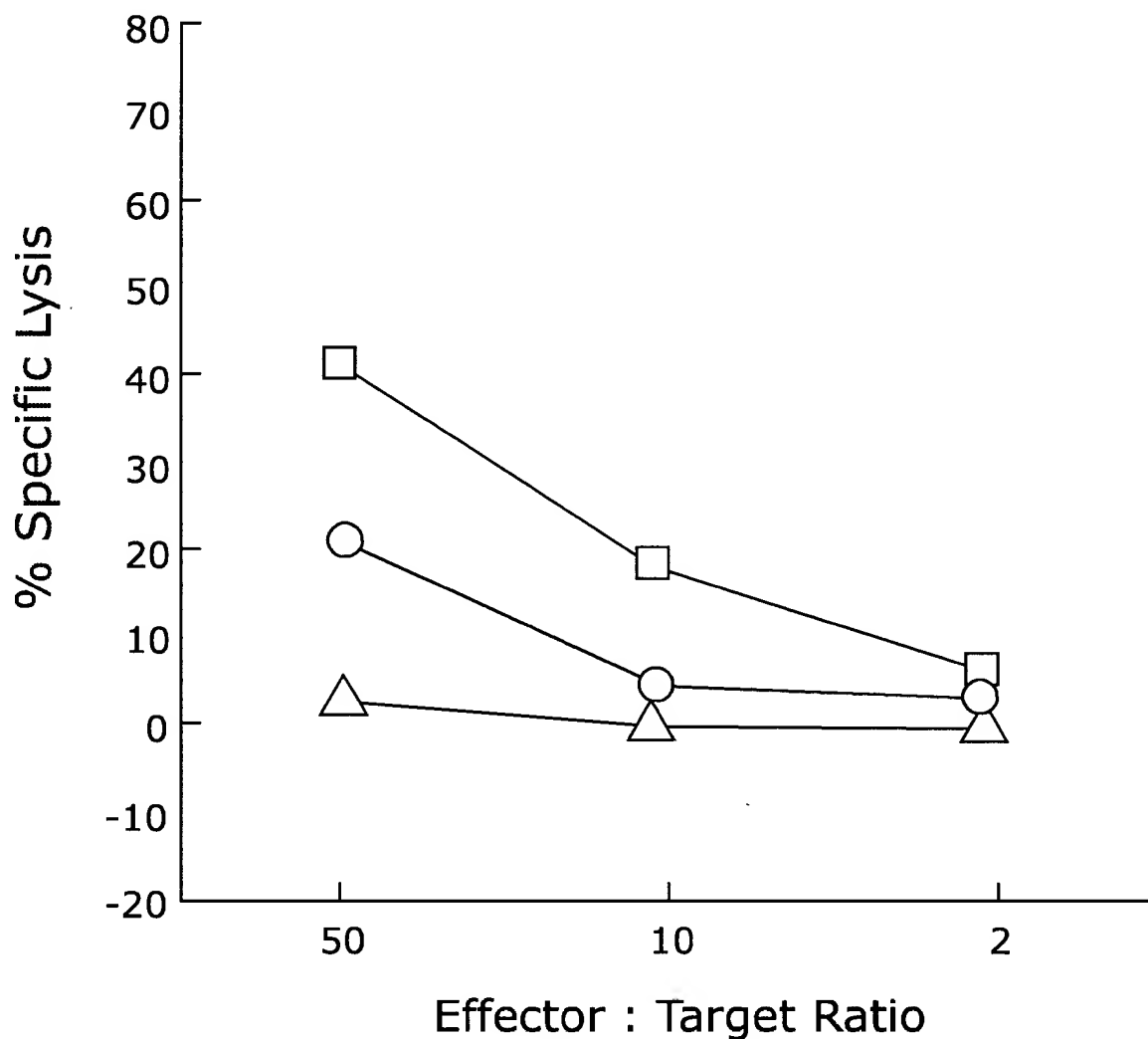
FIGURE 6H



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Ovalbumin "SIINFEKL" (H-2K^b)

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



LEGEND

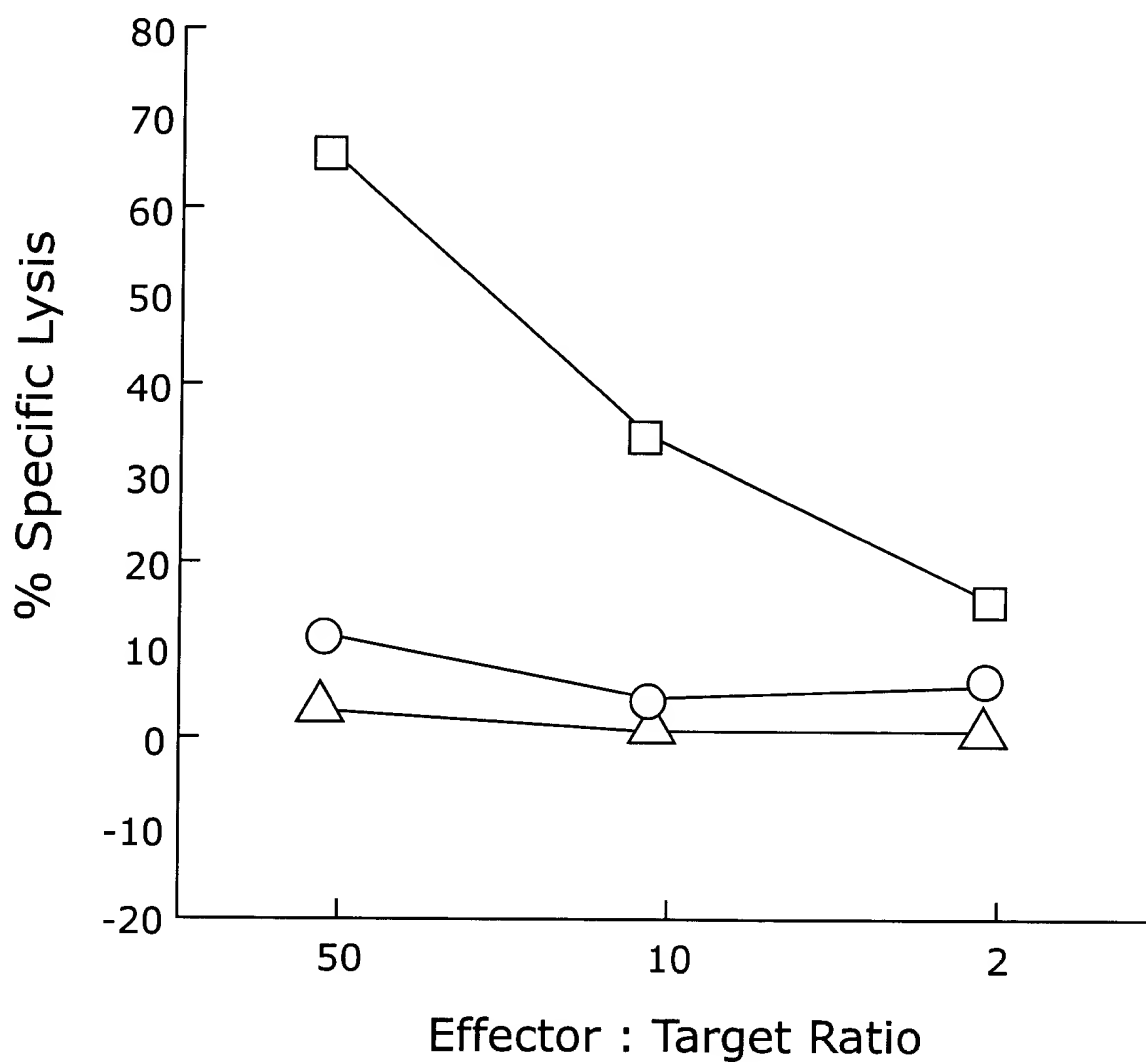
- Bulk Splenocytes from Polytope Vaccinated Mice
- △— No peptide Control
- Bulk Splenocytes from TK- Vaccinated Mice

FIGURE 6I



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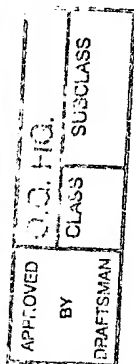
Sendi NP "FAPGNYPAL" (H-2K^b)



LEGEND

- Bulk Splenocytes from Polytope Vaccinated Mice
- △— No peptide Control
- Bulk Splenocytes from TK- Vaccinated Mice

FIGURE 6J





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APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

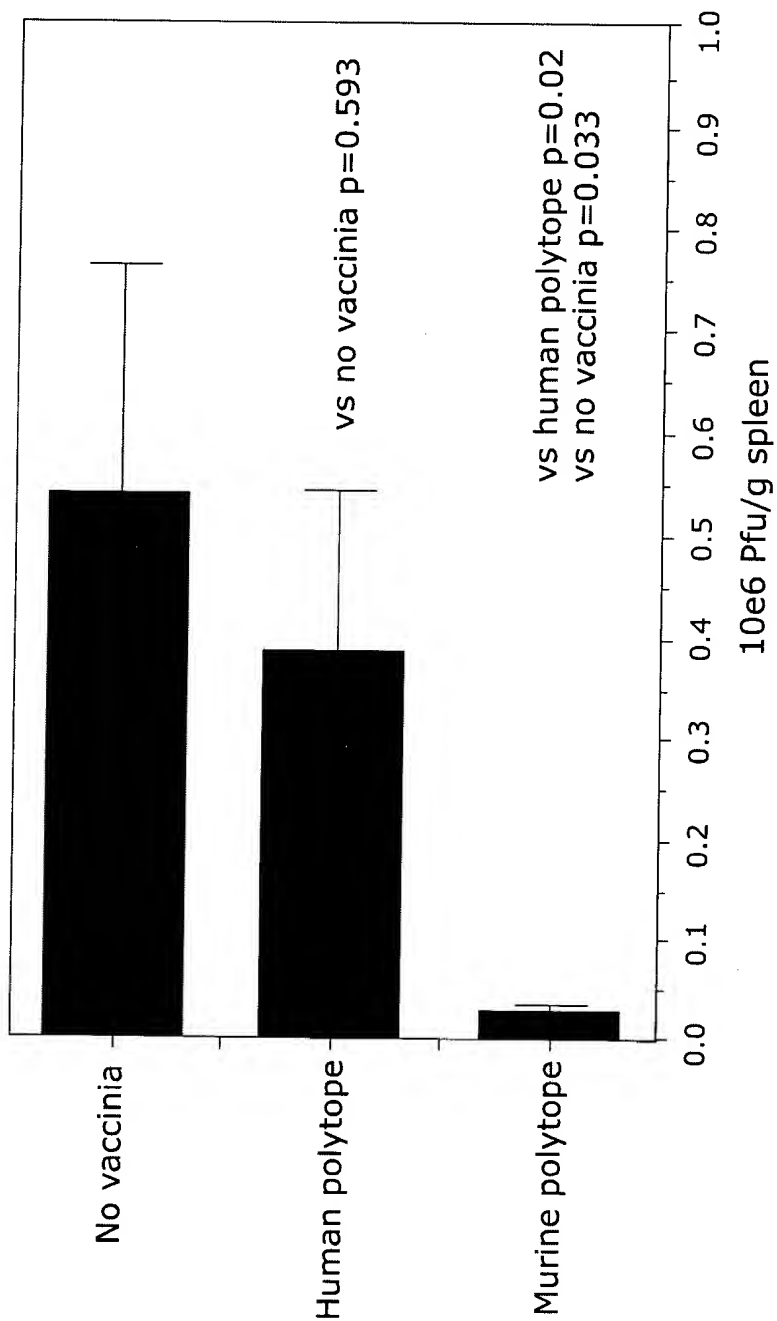


FIGURE 7



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APPROVED	O.G. FIG.	SUBCLASS
BY	CLASS	
DRAFTSMAN		

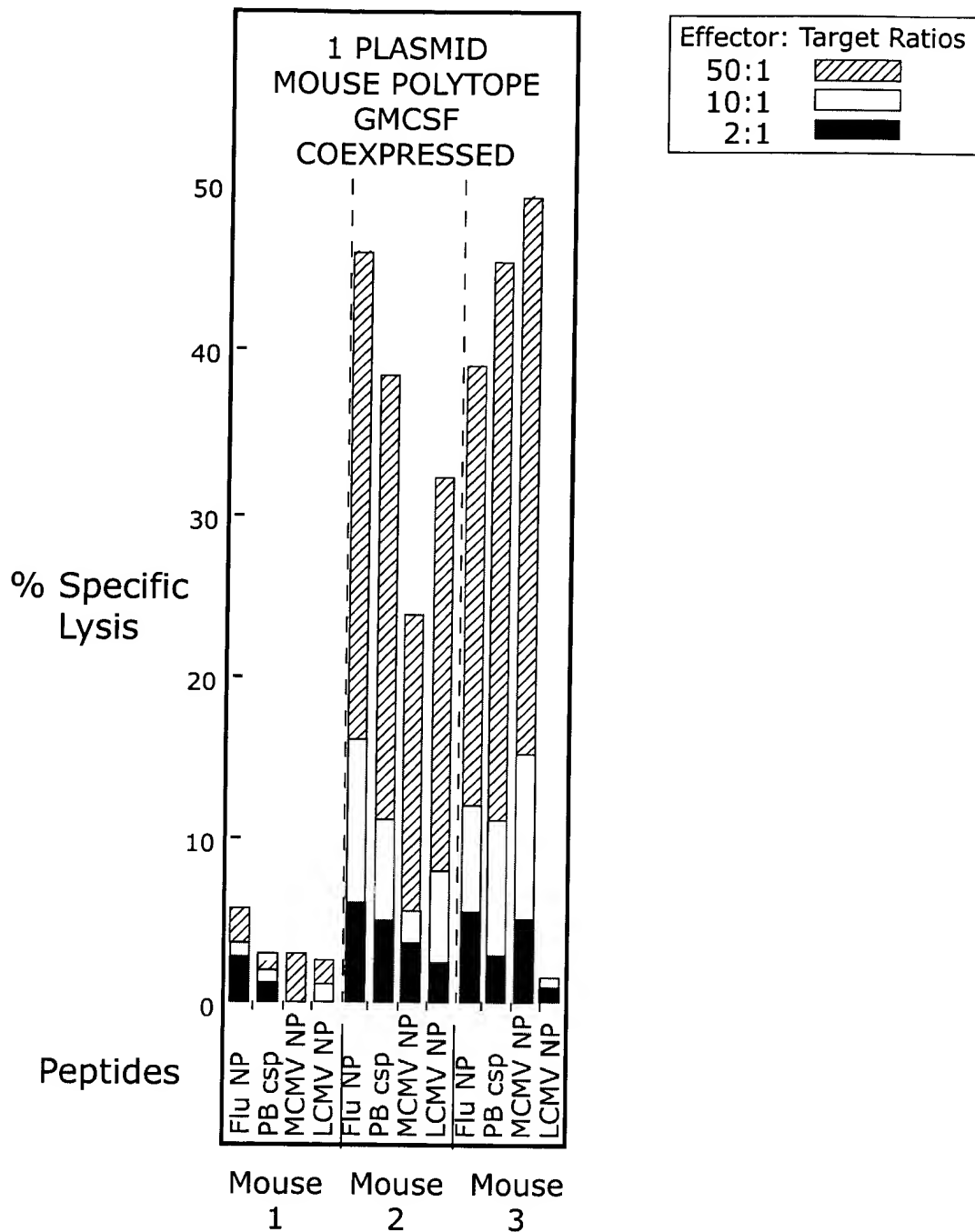


FIGURE 8a



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APPROVED	D.G. FINE	
BY	CLASS	SUBCLASS
DRAFTSMAN		

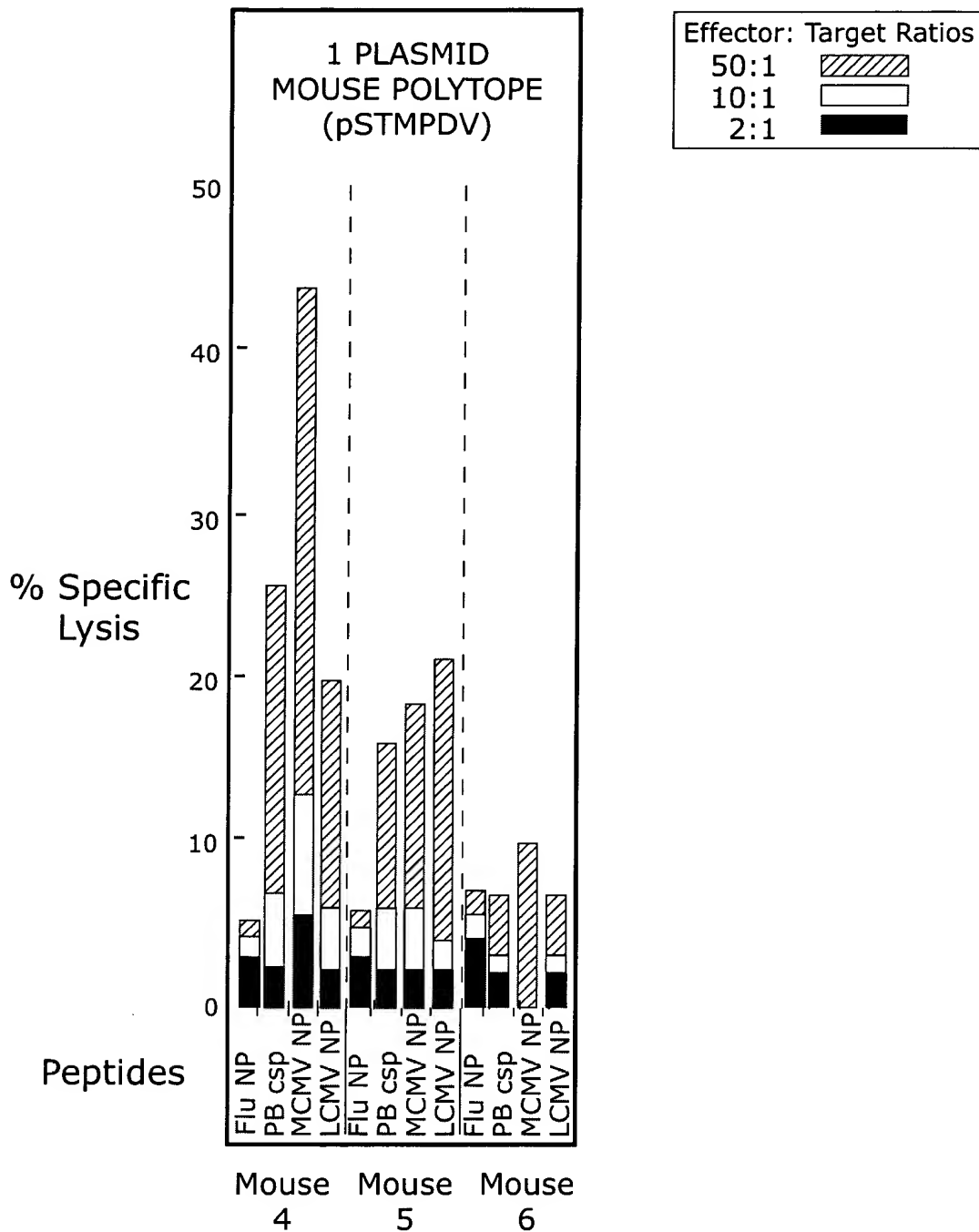


FIGURE 8b



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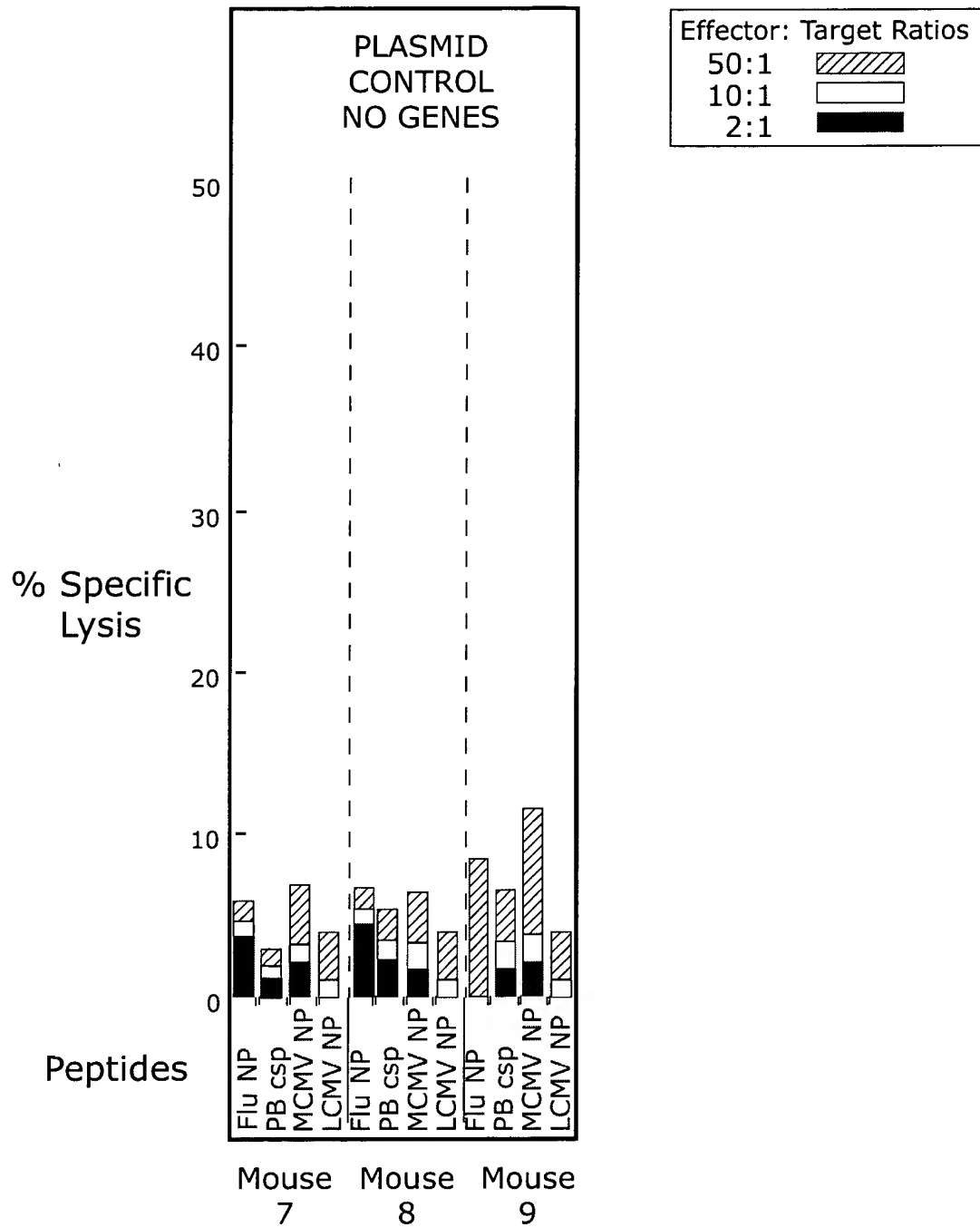
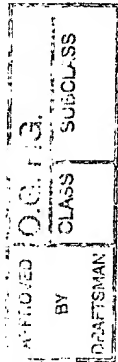


FIGURE 8c

APPROVED	O.C. P.S.	SUBCLASS
BY	CLASS	
DRAFTSMAN		



PEPTIDE COATED TARGETS VIRUS INFECTED TARGETS

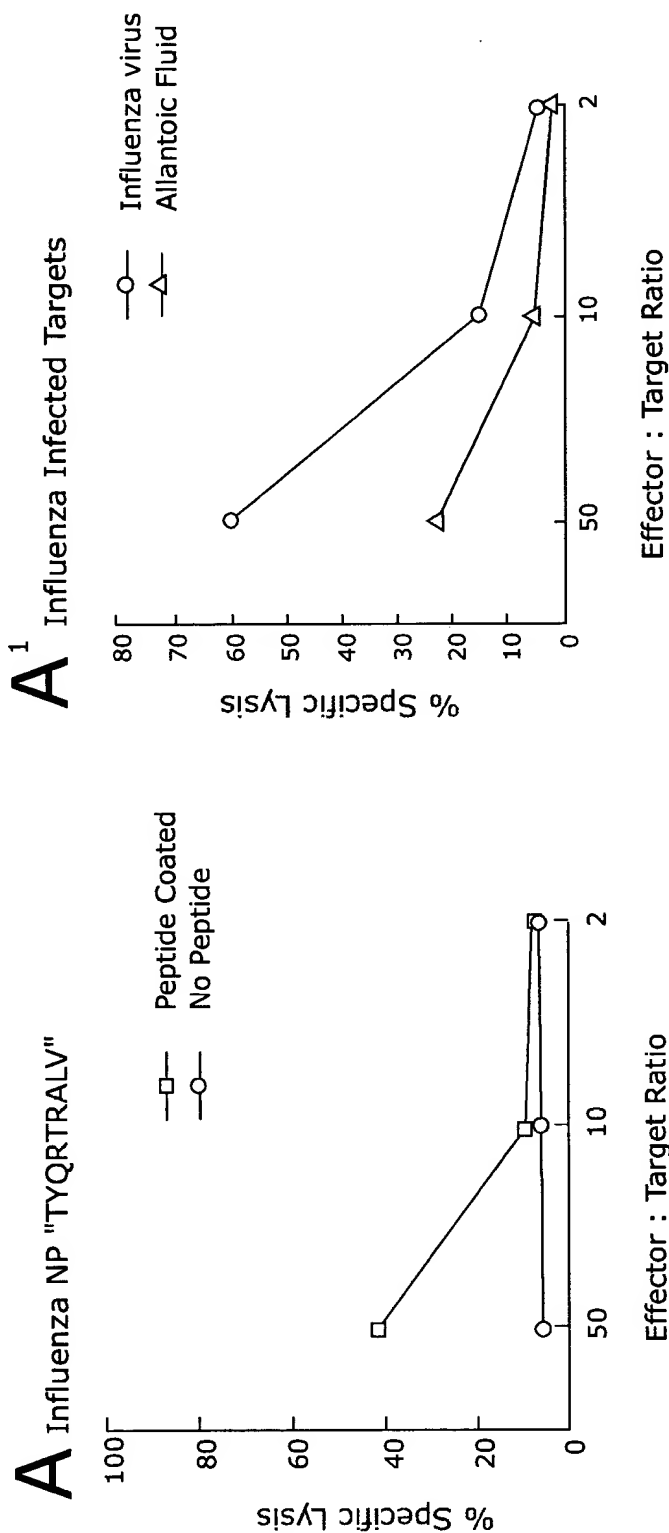


FIGURE 9a

APPROVED	O.C. P.D.	
BY	CLASS	SUECLAGS
DRAFTSMAN		



PEPTIDE COATED TARGETS VIRUS INFECTED TARGETS

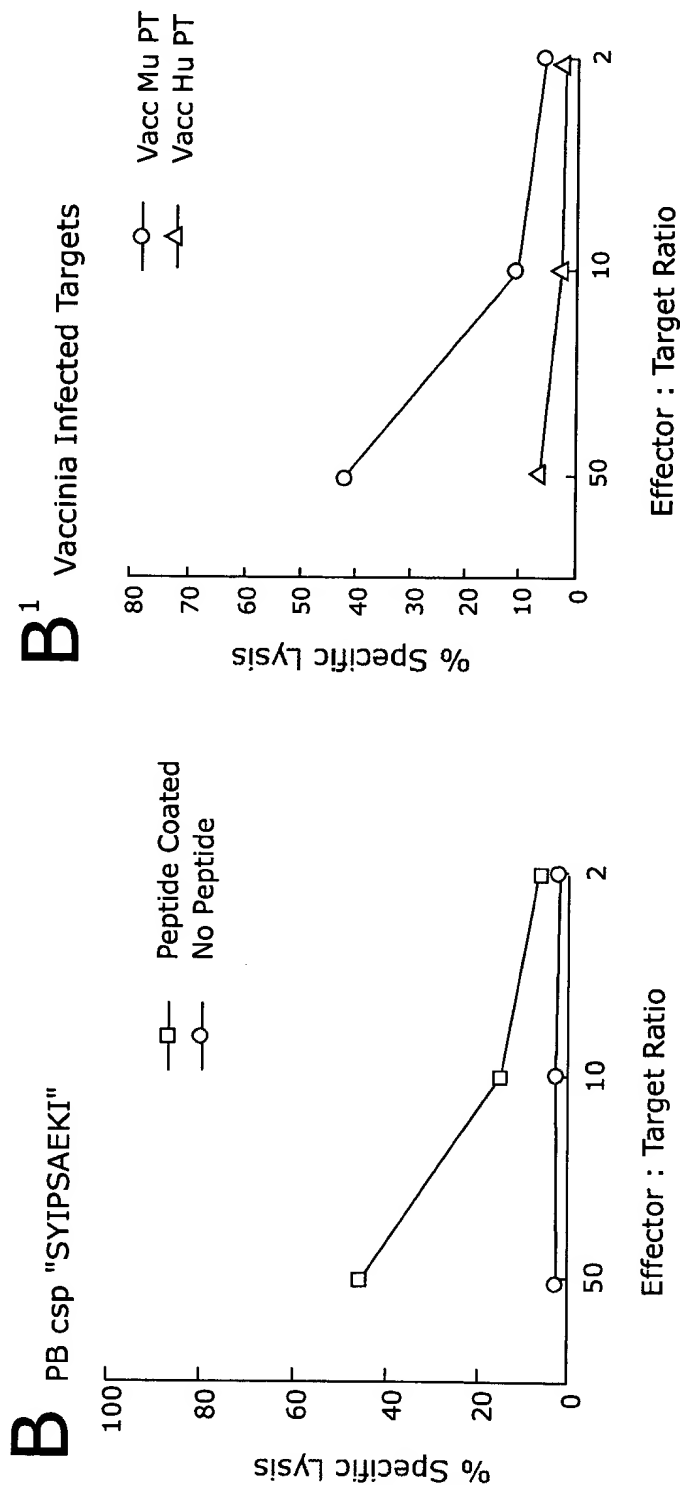


FIGURE 9b

APPROVED	O.G. FIG.	
BY	CLASS	SUCCESS
DRAFTSMAN		



PEPTIDE COATED TARGETS

VIRUS INFECTED TARGETS

C_{MCMV pp89 "YPHFMPPTNL"}

C_{Vaccinia Infected Targets}

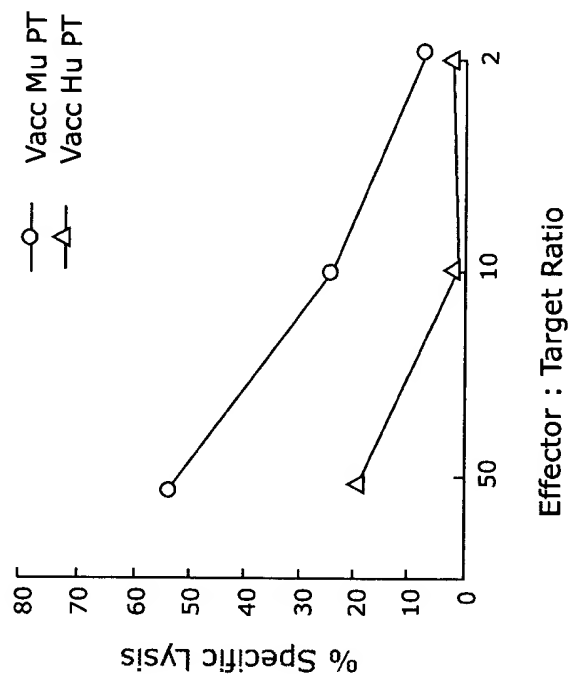
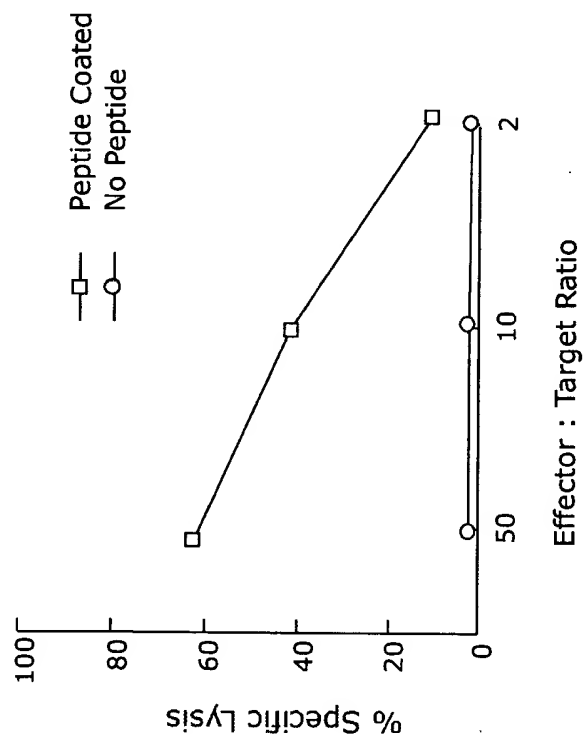


FIGURE 9c

APPROVED	O.G. F.R.G.	
BY	CLASS	SUBCLASS
CRAFTSMAN		



PEPTIDE COATED TARGETS VIRUS INFECTED TARGETS

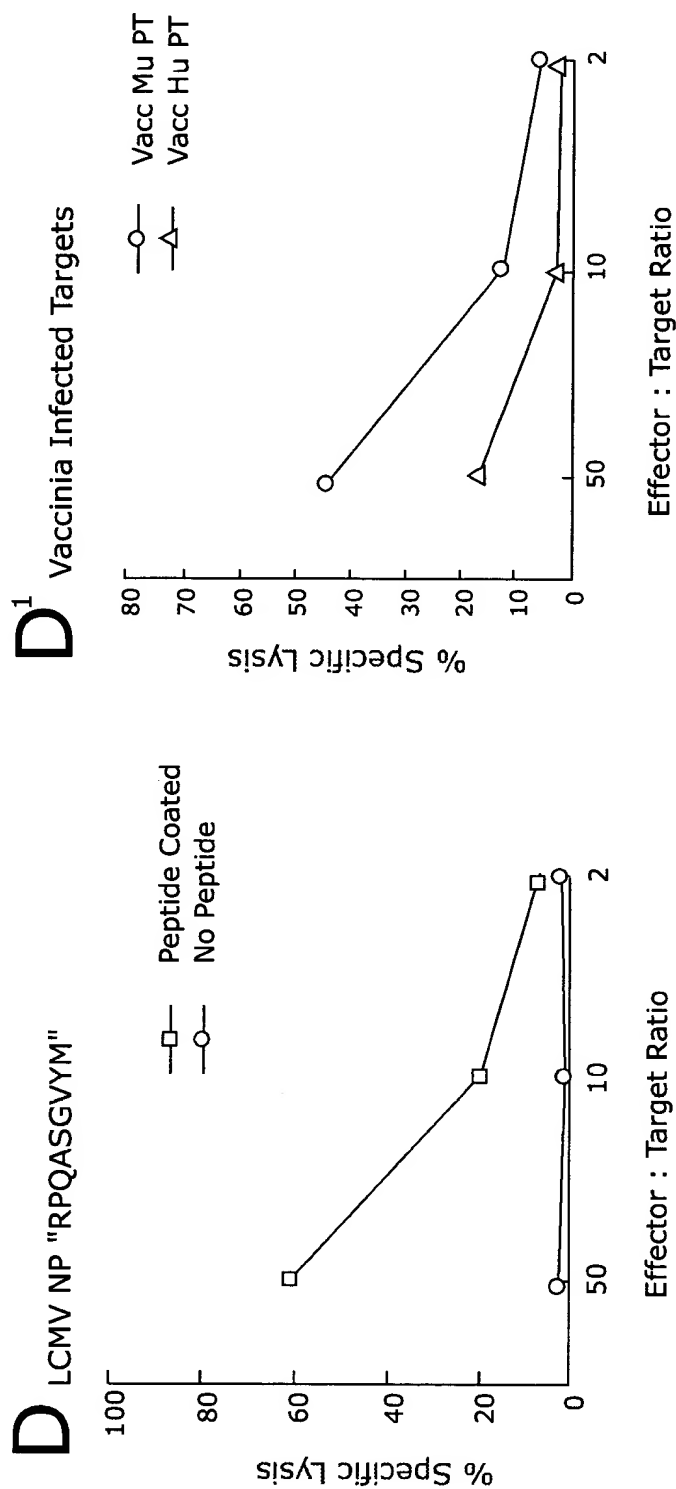


FIGURE 9d

APPROVED BY CLASS DRAFTSMAN

O.G. FIG. 3

SUBCLASS



PEPTIDE COATED TARGETS VIRUS INFECTED TARGETS

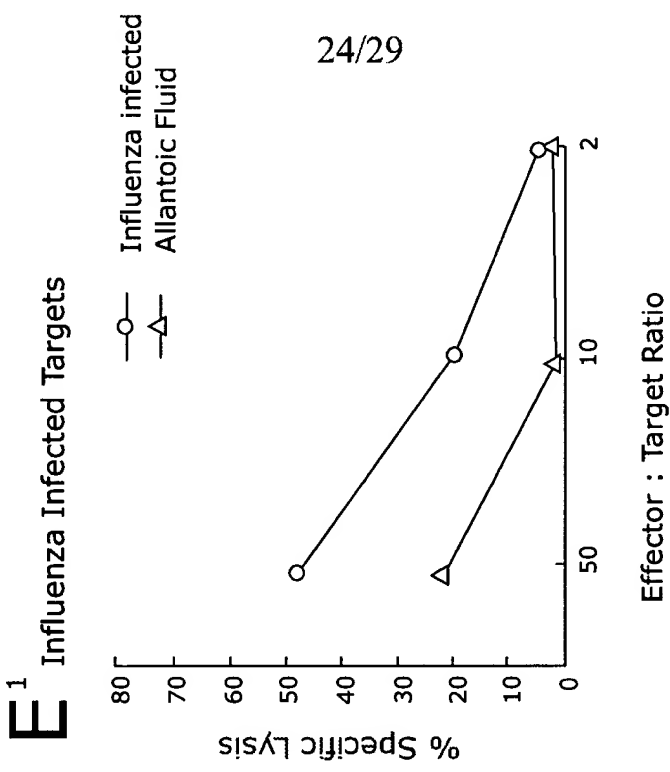
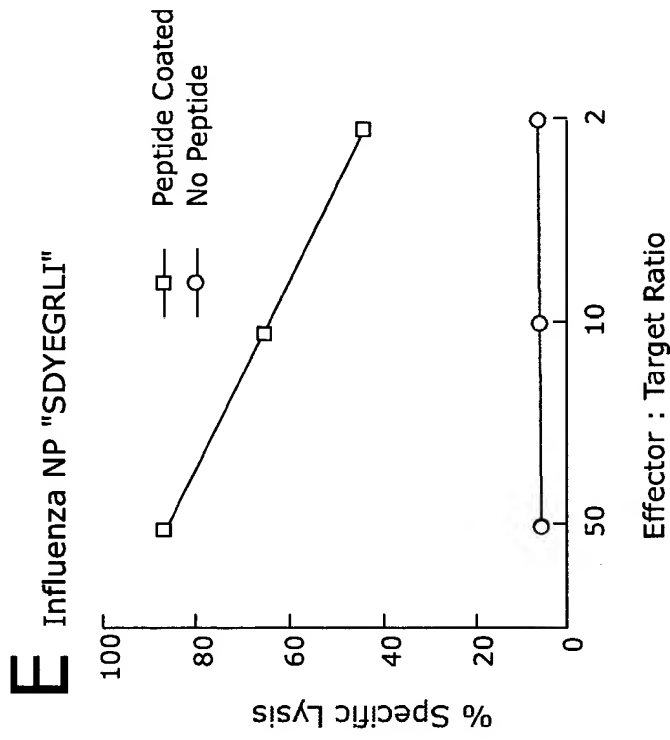


FIGURE 9e

APPROVED FOR	CLASS	SUBCLASS
BY		
DRAFTSMAN		



PEPTIDE COATED TARGETS VIRUS INFECTED TARGETS

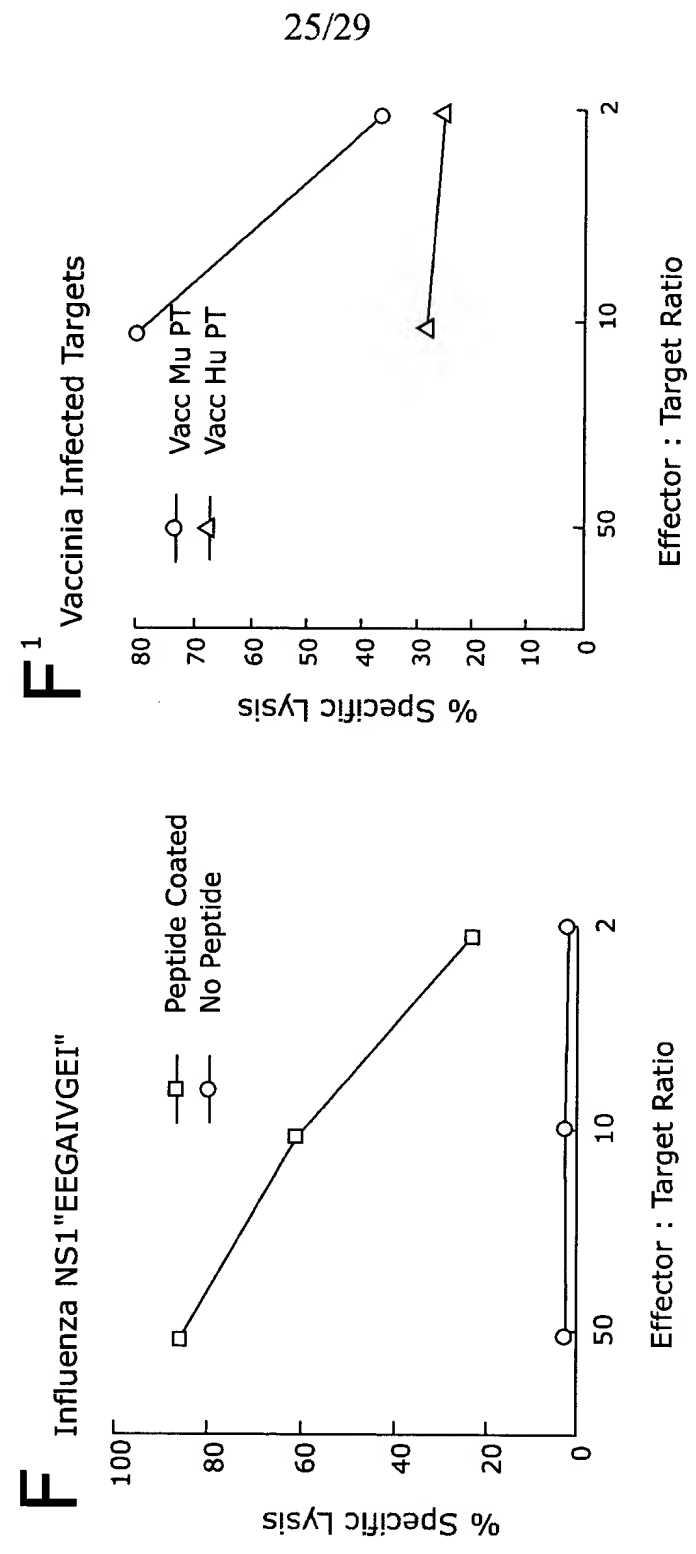
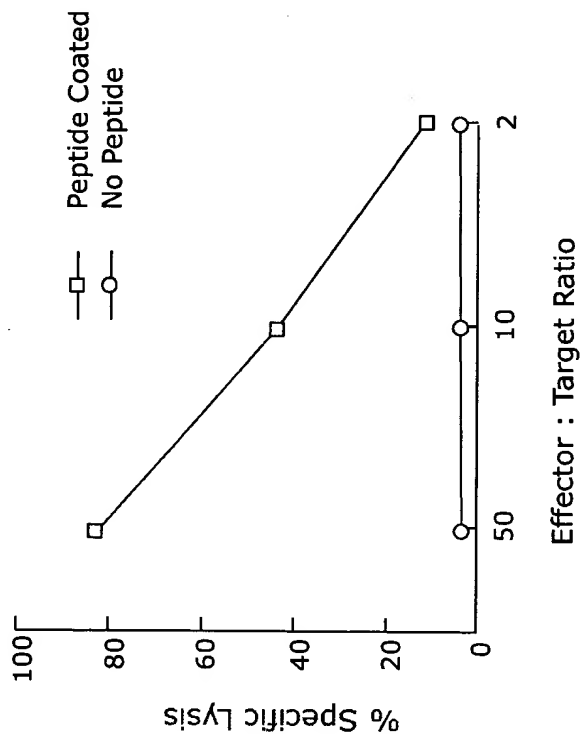


FIGURE 9f

PEPTIDE COATED TARGETS

VIRUS INFECTED TARGETS

G Influenza NP "ASNENMDAM"



G¹ Vaccinia Infected Targets

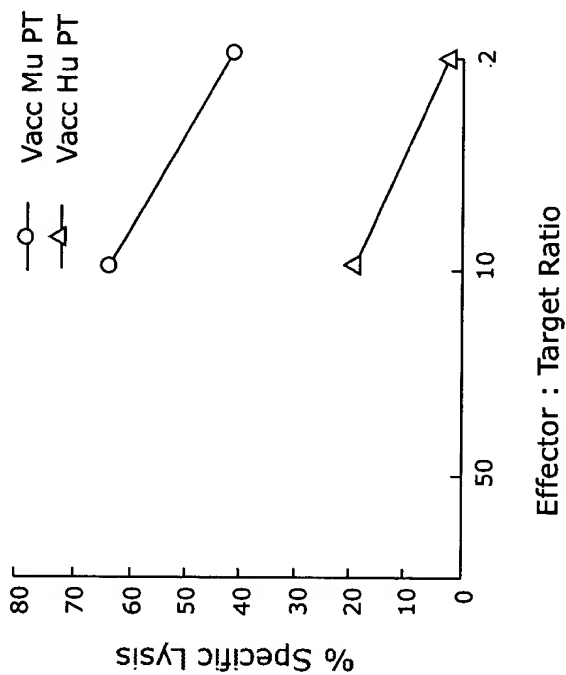
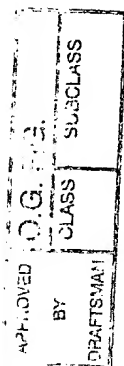


FIGURE 9g



PEPTIDE COATED TARGETS VIRUS INFECTED TARGETS

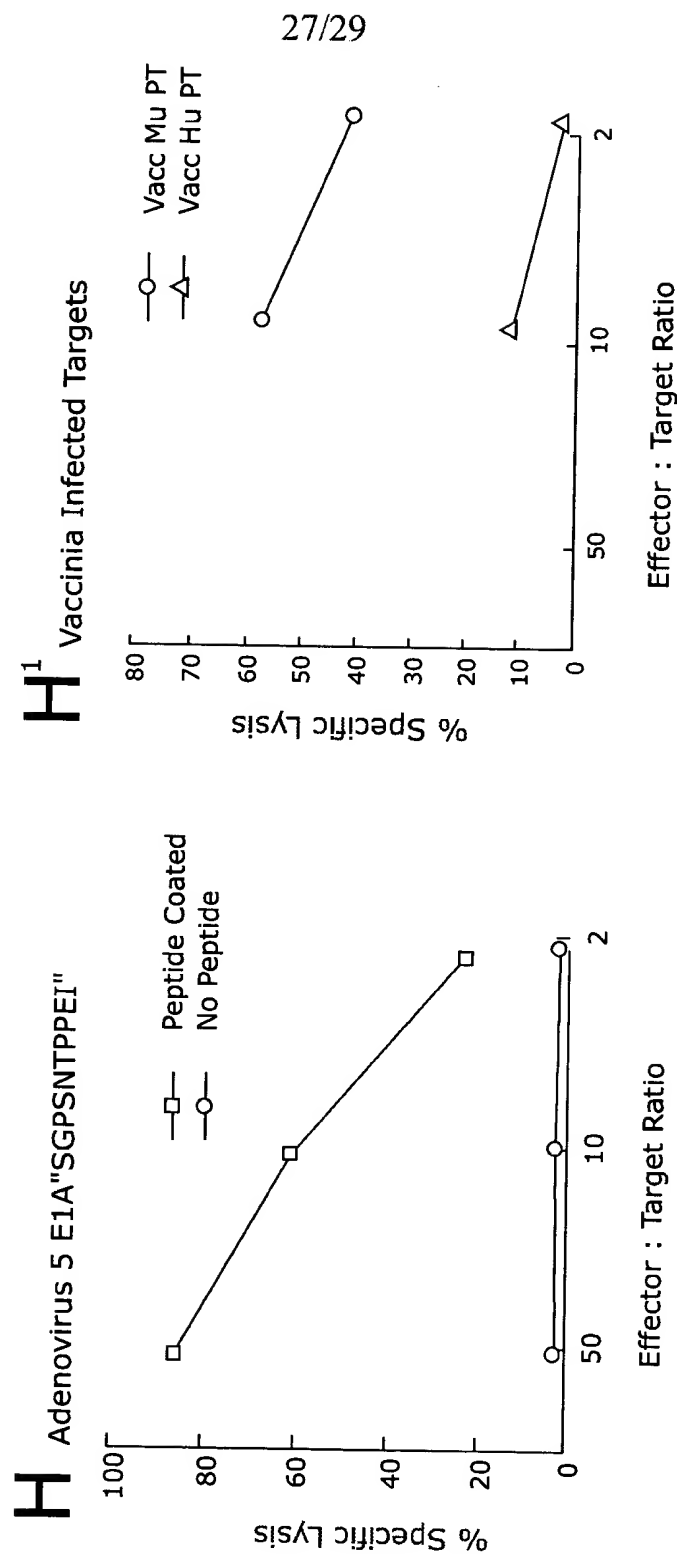


FIGURE 9h

PEPTIDE COATED TARGETS

VIRUS INFECTED TARGETS

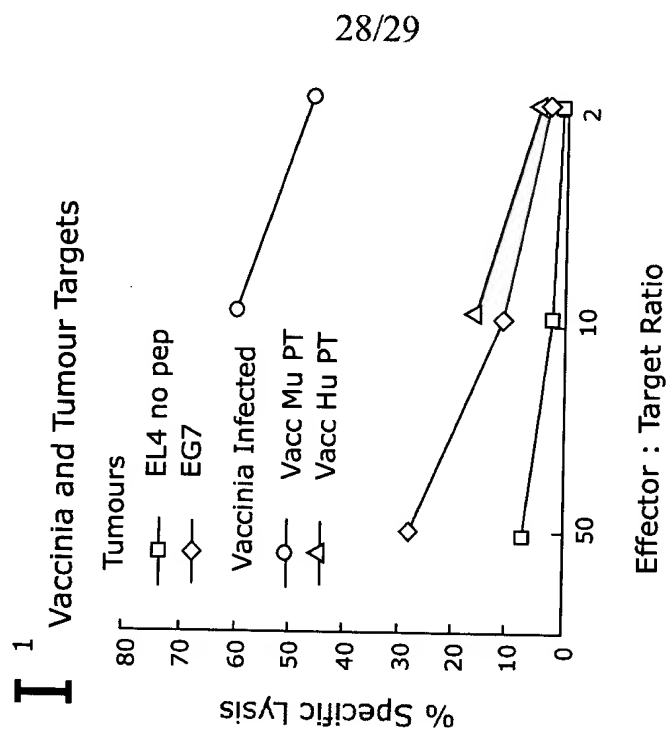
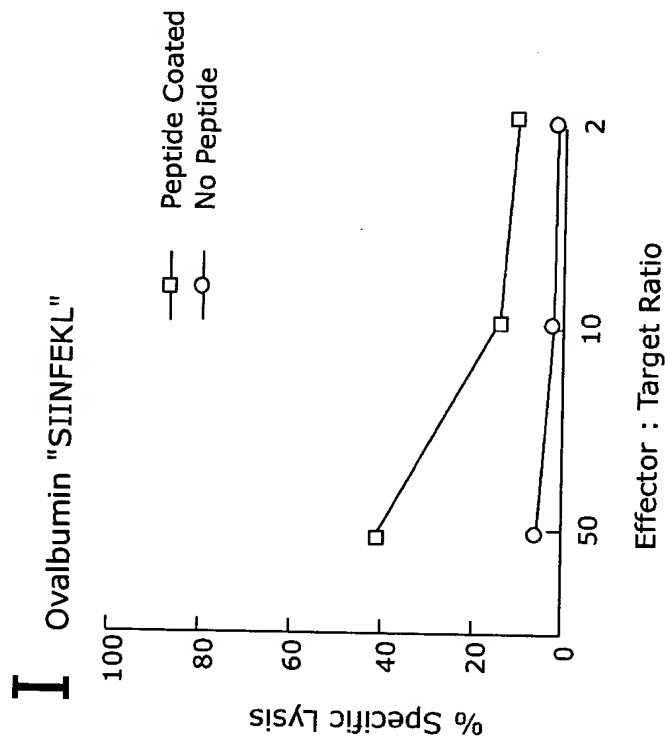
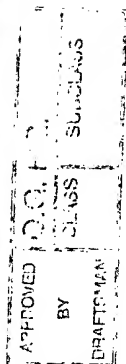


FIGURE 9i

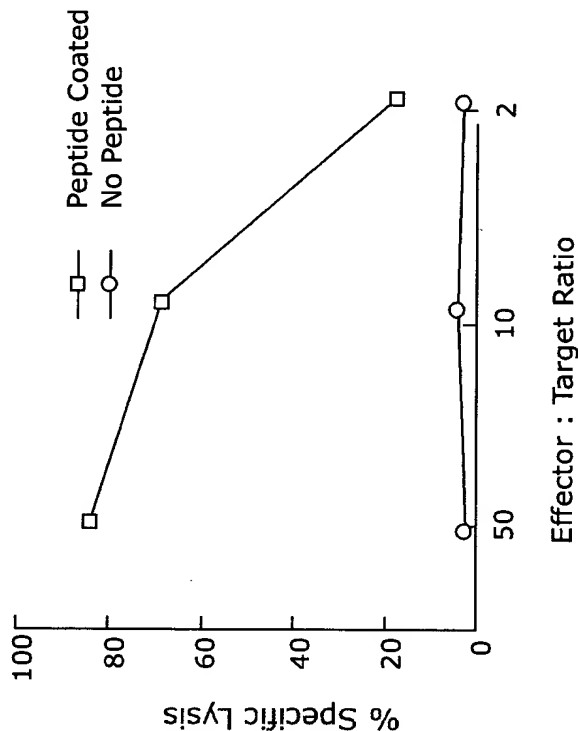


APPROVED	O.G.	2
BY	CLASS	SUBCLASS
INVENTOR		



PEPTIDE COATED TARGETS VIRUS INFECTED TARGETS

J Sendi Virus NP "FAPGNYPAL"



J¹ Vaccinia Infected Targets

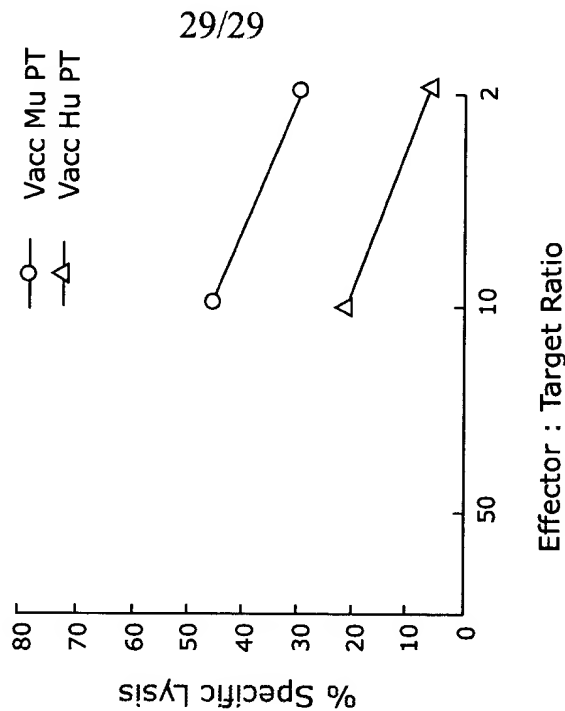


FIGURE 9j